payer. **METHODS:** A retrospective study using double source of information both registration of authorized services and consumption of the insurer's database as the histories of two institutions specialized pain care belonging to network service providers the same insurer, using a random sample of patients (n = 271) within a universe of 803 patients between 2002 and 2008. Using Bottom-up methodology is performed a micro-costing analysis grouping by frequency setting monthly consumption and annual costs with measures of central tendency and dispersion, costs were estimated at constant prices of 2008. **RESULTS:** The average age of presentation of the diseases was 37 years, there were no significant differences in gender distribution. (47.6% men and 52.4% women) The average total annual cost per patient was US$ 3322, the trend of the data series showed an increase of total costs in the period 2002–2006 and then a reduction in the period 2006–2008 with variable behavior depending on the category costs. The services represent a greater financial burden are the outpatient medicines (35%) and osteosynthesis materials (30%). We estimated the annual expected frequency of use for a patient with these characteristics. It is possible that cost trends are explained by the incorporation of a pain management program of the insurer with the use of new medicines that improve the clinical picture of patients. **CONCLUSIONS:** Chronic pain and neuropathic pain represent a significant economic burden, is essential to identify the most cost effective interventions in their management.

PSY16

MEDICAL SERVICES UTILIZATION AND EXPENDITURE OF OBESITY-RELATED DISORDERS IN TAIWANESE ADULTS

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OBJECTIVES: Obesity was associated with increasing morbidity and mortality of many chronic diseases, such as cardiovascular diseases, hypertension, diabetes mellitus, and stroke. Furthermore, the obese subjects had higher medical utilization with increasing BMI status, especially for the outpatient visits. The purpose of this study is to evaluate medical service utilization and medical expenditure associated with the obesity-related diseases in different weight status subjects in Taiwan. **METHODS:** A cross-sectional survey based on the National Health Interview Survey (NHIS) was conducted in 2001. Subjects greater than 20 years old who lived in Taiwan, correlated by National Health Insurance (NHI) during 2001–2004 were included and finally 12,283 subjects were used for analyses. **RESULTS:** In general, male subjects were older, taller, heavier, larger BMI, higher medical utilization usage and expenditure than female. The higher BMI status, the higher prevalence of hypertension, type 2 diabetes, cardiovascular diseases and gout. All obesity-related disorders had increasing trends with larger BMI ($p < 0.001$). Obese subjects (BMI ≥a 27 kg/m^2) had the highest prevalence of hypertension (32.8%), following by Type 2 diabetes (25.6%). After adjusting for age, smoking, drinking and obesity-related disorders, the higher the BMI, the use of medical utilization in out-patient from 1.33 to 4.04 visit/year ($p < 0.05$) and in-hospital from 0.05 to 0.07 admission/year ($p < 0.05$). The average out-patient expenditure (all cost including physician-fee and drug cost) per year was NT$ 1201, 1857, 3960 and 5118 dollars (exchange rate as 1USD = 32NTD) for underweight, normal, overweight and obesity subjects. **CONCLUSIONS:** In this study, the higher BMI status, the more medical utilization and higher out-patient medical expenditure was found. These results may help us to make decision on policy for resources allocation and strategies priority of obesity to resolve the major public health problem even in the developing country such as Taiwan.

PSY17

LITERATURE REVIEW OF THE ECONOMIC BURDEN OF IRON OVERLOAD ASSOCIATED WITH β-THALASSEMIA, SICKLE CELL DISEASE, AND MYELODYSPLASTIC SYNDROMES IN THE UNITED STATES (US)

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OBJECTIVES: Patients with β-thalassemia, sickle cell disease (SCD), and myelodysplastic syndromes (MDS) require chronic blood transfusions, which lead to iron overload and substantial morbidity (e.g., cardiac failure, diabetes, hypothyroidism, hypogonadism) and mortality. To reduce the excess iron and its deleterious effects, available iron chelation therapy (ICT) in the US includes oral deferasirox or infusional deferoxamine (DFO). The aim of this literature review was to assess the economic burden of iron overload among US patients with β-thalassemia, SCD, and MDS. **METHODS:** We identified economic evaluations of iron overload in patients with β-thalassemia, SCD and MDS that either were published in MEDLINE-indexed, English-language journals since 1999, or appeared in professional society websites and scientific meeting abstracts. We summarized and critically compared costs (adjusted to 2009 USD) from this literature. **RESULTS:** The majority of studies assessed direct medical costs associated with iron overload among patients with β-thalassemia and SCD, where the association was reported as costs of ICT with DFO. Annual costs of patients with complications (notably cardiac disease, diabetes, etc.) varied from $72,000 to $103,000 per patient. Annual direct medical costs of patients undergoing ICT varied by disease—$47,000 and $74,000 per patient for β-thalassemia and SCD, respectively. Less information was available for MDS patients. ICT accounted for ~33% of total medical costs, followed by costs for inpatient and outpatient care. Little information was available on costs incurred by untreated patients or those non-compliant with their ICT. **CONCLUSIONS:** The economic burden of iron overload among transfusion dependent patients with β-thalassemia, SCD, and MDS in the US is substantial. The majority of information is on SCD and β-thalassemia, while the economic burden of iron overload in MDS is not clearly elucidated. More information is needed on the differential real-world impact of ICT choices on treatment adherence and on the economic burden overall.

PSY18

HEALTH CARE COSTS AND MEDICATION COMPLIANCE AMONG ELDERLY FIBROMYALGIA PATIENTS ON DULOXETINE VERSUS PREGABALIN

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OBJECTIVES: To examine whether duloxetine initiators had different medication compliance or health care costs than pregabalin initiators among elderly patients with fibromyalgia. **METHODS:** A large, US national claims database was analyzed to identify fibromyalgia patients aged 65 and above with Medicare supplemental insurance who initiated duloxetine or pregabalin in 2006. Initiation was defined as no pill coverage in the previous 90 days, with the first initiation date as the index date. All selected patients had 12-month continuous enrollment before and after the index date. Duloxetine initiators with diabetic peripheral neuropathic pain (DPNP) or depression, and pregabalin initiators with DPNP, post-herpetic neuralgia or epilepsy diagnosis in the 12-month pre-index period were excluded. Propensity scoring was applied to construct the duloxetine and pregabalin cohorts controlling for differences in demographics, pre-index clinical and economic characteristics, and pre-index treatment patterns. Medication compliance (i.e., medication possession ratio (MPR), proportion of patients with MPR ≥ 80%), and health care costs over the first 12-month post-index period were examined between cohorts. **RESULTS:** Patients in the duloxetine (n = 614) and pregabalin (n = 1188) cohorts had a mean age of 75 years. The most common comorbid conditions in both cohorts were cardiovascular disease (88.1% vs. 85.8%), neuropathic pain other than DPNP (72.5% vs. 72.2%), low back pain (71.6% vs. 71.3%), and osteoarthritis (57.4% vs. 57.5%), while opioids (83.3% vs. 83.0%) were the most commonly prescribed medication over the 12 months pre-index period. Adjusting for demographics, pre-index clinical and economic characteristics, and prior medication history, duloxetine initiators had significantly higher MPR (0.70 vs. 0.56, $p < 0.05$), higher proportion of patients with MPR ≥ 0.8 (44.8% vs. 29.0%, $p < 0.05$), and significantly lower total health care costs ($26,323 vs. $27,112, $p < 0.05$) over the 12-month post-index period than pregabalin patients. **CONCLUSIONS:** Among elderly fibromyalgia patients, duloxetine initiators had better medication compliance and lower direct health care costs than pregabalin initiators.

PSY19

MULTIPLE MYELOMA: PATIENT OUT-OF-POCKET COSTS AND HEALTH-CARE UTILIZATION

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OBJECTIVES: This study compared number of patient visits and out-of-pocket costs for multiple myeloma (MM) patients treated with bortezomib (BOR; Velcade®; IV administration), lenalidomide (LEN; Revlimid®; oral), thalidomide (THAL; Thalomid®; oral), or other unspecified chemotherapies/radiation therapy. **METHODS:** Patients aged > = 18 yrs, diagnosed with MM between January 1, 2005 and September 30, 2007, and treated with BOR, LEN, THAL, or other unspecified chemotherapies/radiation therapy were identified using claims data from a large US commercial health plan (~14 million members). Treatment episodes (each course of therapy) were identified from patient records. Health-care utilization (number of ambulatory patient visits) and inflation-adjusted patient out-of-pocket costs, including co-pays and deductibles, were examined for 1 yr from the beginning of each treatment episode. Multivariate regression analyses were performed to control for patient characteristics, comorbidities, and line of treatment. **RESULTS:** A total of 2642 treatment episodes for 1900 patients were identified. Most episodes were "other chemotherapy/radiation therapy" (n = 1759), followed by THAL (n = 549), BOR (n = 244) and LEN (n = 90). There were no between-group differences in inpatient or emergency room visits. Patients treated with BOR appeared to have more ambulatory visits compared with patients treated with LEN (77 versus 61; $p < 0.05$); however, this difference was not significant after multivariate analysis (66 versus 57; $p > 0.05$). The total adjusted patient out-of-pocket costs were significantly less for patients treated with BOR ($3504) than for those treated with THAL ($4443, $p < 0.05$) or LEN ($4766, $p < 0.05$). These differences were greatest for Medicare patients, with the adjusted patient costs of THAL ($8,824) and LEN ($12,568) respectively, nearly 2 and 3 times greater than the adjusted costs of BOR ($4,395). **CONCLUSIONS:** There was no significant advantage in terms of fewer patient visits with the oral drugs (THAL, LEN) over BOR. Direct out-of-pocket costs were significantly higher for patients treated with THAL and LEN compared with BOR, especially for Medicare patients.